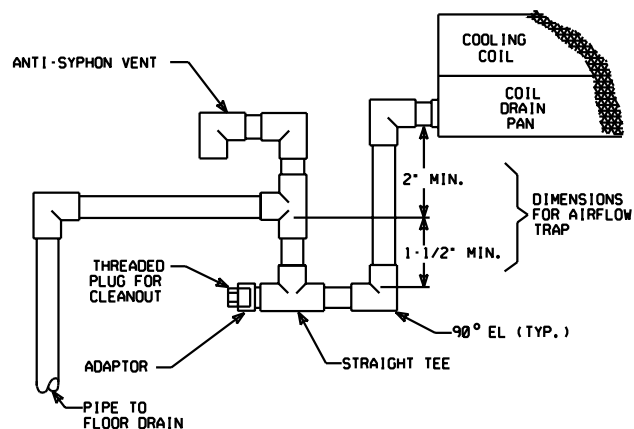
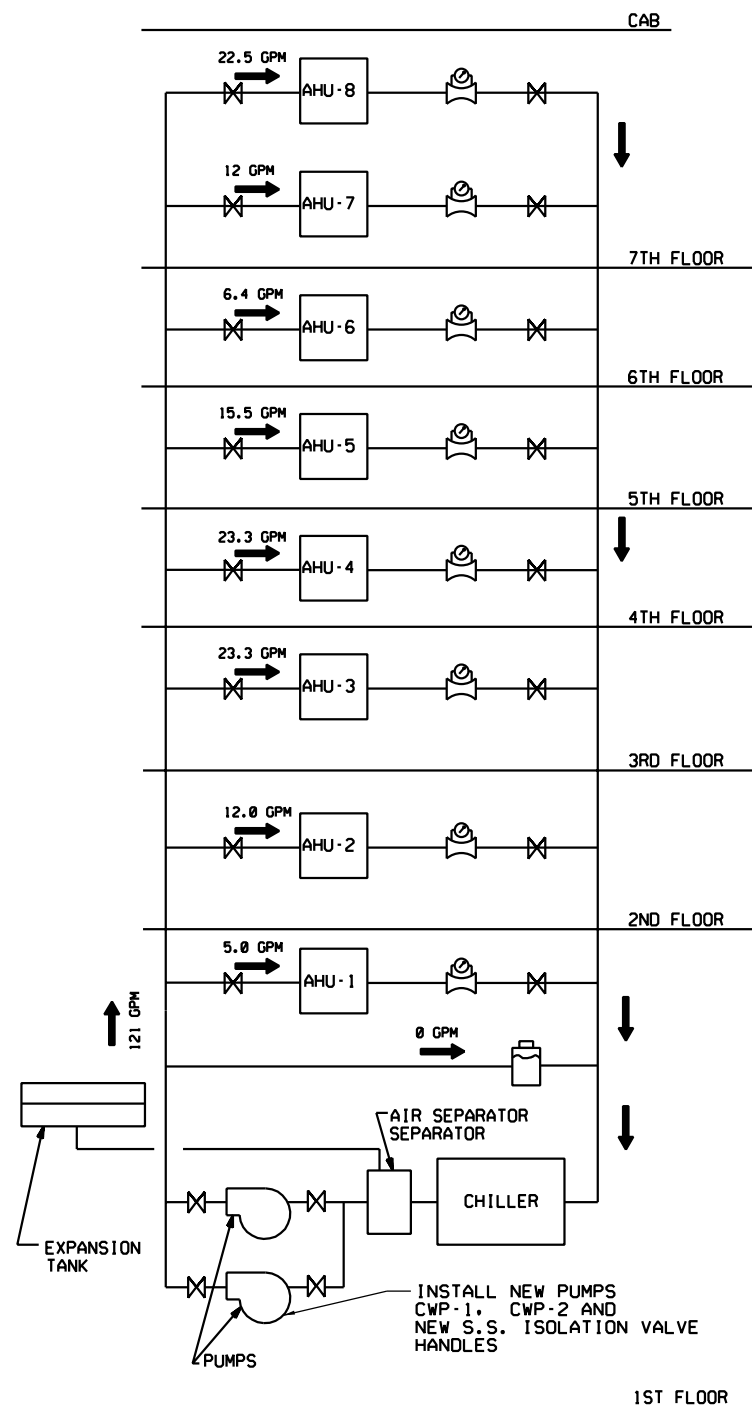


**EXISTING CHILLER WATER PIPING RISER DIAGRAM  
(FOR REFERENCE ONLY)**  
NOT TO SCALE



**1 DETAIL - CONDENSATE DRAIN PIPING**  
NOT TO SCALE



**CHILLED WATER FLOW DIAGRAM**  
NOT TO SCALE

# **NOTE:**

REPLACE ALL AIR HANDLING UNITS AHU-1 THROUGH AHU-8, ASSOCIATED PIPING AND PIPING DEVICES TO INCLUDE, BUT NOT LIMITED TO:

1. BALANCING VALVES FOR EACH AHU UNIT.
2. S.S. ISOLATION VALVE HANDLES.
3. PIPING INSULATION FROM THE ISOLATION VALVES TO UNIT SERVED.
4. THREE WAY CONTROL VALVE AND ASSOCIATED ACTUATOR.
5. DIGITAL THERMOMETERS INDICATING INLET AND OUTLET WATER TEMP. AND ASSOCIATED THERMOMETER WELLS.
6. DIGITAL THERMOMETERS INDICATING SUPPLY AIR AND RETURN AIR TEMP.
7. AHU VIBRATION ISOLATION PADS, INSTALL NEOPRENE TYPE.
8. VENTURI TYPE FLOW MEASUREMENT STATION. INCLUDE TWO DIFFERENTIAL PRESSURE GAGES IN A SEPERATE CARRYING CASES TO ALLOW MEASUREMENT.
9. BALL VALVE TYPE HOSE BIB FOR LOW POINT DRAIN.
10. HIGH POINT VENT.

SEE DWG. -M020 FOR DEVICE SPECIFICATION.

REPLACE ALL CHILLED WATER PUMPS, CWP-1 AND CWP-2 ASSOCIATED PIPING AND PIPING DEVICES TO INCLUDE, BUT NOT LIMITED TO:

1. BALANCING VALVES FOR EACH PUMP.
2. S.S. ISOLATION VALVE HANDLES.
3. PIPING INSULATION FROM THE ISOLATION VALVES TO INCLUDE THE PUMP.
4. PUMP PIPE STANDS
5. CHEMICAL POT FEEDER.
6. BACKFLOW PREVENTER
7. AIR SEPERATOR AND AUTOMATIC AIR VENT.
8. VENTURI TYPE FLOW MEASUREMENT STATION. INCLUDE DIFFERENTIAL PRESSURE GAGE - PERMANTLY MOUNTED.
9. RETURN AND SUPPLY PRESSURE GAGES.

SEE DWG. -M020 FOR DEVICES SPECIFICATION.

## **LEGEND**

- FLOW MEASUREMENT STATION (SEE PIPING DIAGRAM FOR SPECIFIC DETAILS)
- FLOW DIRECTION ARROW - BALANCE TO RATE (GPM) SHOWN
- CHEMICAL INJECTION TANK (NORMALLY NO FLOW)

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
<p>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO - TECHNICAL OPERATIONS WESTERN SERVICE AREA</p> <p>ATCT</p> <p>HILO INTERNATIONAL AIRPORT ATCT MODERNIZATION - MECH. RENOVATION CHILLED WATER PIPING DIAGRAM</p>					
<p>HILO HAWAII HI</p> <p>REVIEWED BY SUBMITTED BY APPROVED BY</p> <p>EDWARD CHAU DO NOT SIGN DO NOT SIGN DO NOT SIGN DO NOT SIGN</p> <p>PROJECT ENGINEER MCR ENGINEERING - LA</p> <p>DESIGNED BY EC ISSUED BY DATE 01/29/2010 JCN 415344</p> <p>DRAWN BY CGV ENGINEERING SERVICES DRAWING NO</p> <p>CHECKED BY EC TERMINAL</p> <p>170-0-ATCT-M015</p>					